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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/529,210	07/24/2000	GORDON REX PATERSON DOUGAL	9052-53	1793
20792	7590	03/11/2005	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627			JOHNSON III, HENRY M	
			ART UNIT	PAPER NUMBER
			3739	

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/529,210
Filing Date: July 24, 2000
Appellant(s): DOUGAL, GORDON REX PATERSON

MAILED
MAR 1 1 2005
GROUP 3700

Virulite Limited
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 25, 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

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The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The examiner agrees with the grouping as stated.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6063108	Salansky et al.	05-2000
5527350	Grove et al.	06-1996

Lasers and Electro-optics by
Christopher C. Davis,
Cambridge Univ Press 1996,
page 289.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 6-12, and 15-24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,063,108 to Salansky et al. Salansky et al discloses an apparatus for treating tissue that uses radiation in the range of 400-2000nm (Col. 3, line 44) with an intensity of from 0.2 to 5000 mW/cm². The apparatus uses light emitting diodes (Col. 3 line 51) that inherently produce divergent radiation. Diodes, by definition, include a PN junction. Salansky et al teaches

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the radiation can be either pulsed or continuous with average powers adjustable by the processor over a wide range by varying the pulse repetition rates over a wide range of hertz and the pulse durations from microsecond to milliseconds (Col 14, line 31). The treatments disclosed by Salansky et al, provide exposure times from 3 to 500 seconds (Table 8) and dosages in Joules/ cm² (Table 5) as is common in the art. A display shows system parameters such as timer, power, and frequency (Col. 23, line 24). Salansky et al teaches treating numerous afflictions including herpes (Col. 37, line 17). The treatments indicated in claims 7-9 are intended use and have been given limited patentable weight. Figure 13 shows a flexible applicator that can be wrapped around the surface contours of the body (Col. 26, line 1) that inherently reduces the amount of ambient light.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,063,108 to Salansky et al. Salansky et al does not disclose expressly the specific divergence of the emitting device. Applicant has not disclosed that the increased beam divergence provides any advantage or unexpected result. Therefore, pending a statement of criticality, the cited divergence is considered to be an obvious design choice to one having ordinary skill in the art.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,063,108 to Salansky et al. Salansky et al cites repetition frequencies from 0 to 200 Hz and 1000 to 10,000 Hz, yet does not disclose 201 to 999 Hz specifically. Applicant has not disclosed that the specific repetition rate provides any advantage or unexpected result. Salansky et al teaches treatment routines for many different afflictions that are programmed as protocols into the processor that controls the frequency, pulse width and repetition rate. There is no evidence that use of the unique frequency/repetition rate would produce any unexpected

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results. Therefore, pending a statement of criticality, the cited frequency/repetition rate is considered to be an obvious design choice to one having ordinary skill in the art.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,063,108 to Salansky et al in view of U.S. Patent 5,527,350 to Grove et al. Salansky et al is discussed above. Grove discloses the use of gas lasers (Col. 1, line 56) in tissue treatment. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a gas laser as disclosed by Grove et al in the device of Salansky et al to obtain the wavelength desired for treatment.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,063,108 to Salansky et al in view of Lasers and Electro-optics by Christopher C. Davis, Cambridge University Press 1996, page 289. Salansky et al does not specifically disclose a diode with multiple PN junctions. The use of multiple PN junctions is old and well known in the art of LED construction as disclosed by Lasers and Electro-optics by Christopher C. Davis, thereby making their use an obvious design choice.

(11) Response to Argument

The applicant argues that the cited references do not disclose all of the recitations of the claims as required in a rejection under 35 U.S.C. § 102. In particular, the cited references do not disclose the wavelengths centered at 1072 nm or at 1268 nm as recited in Claim 1 with sufficient specificity. While Salansky et al disclose a broad range of 400 to 2000nm, as first stated in the office action of July 28, 2003, Salansky et al also teach a narrower range of 800 to 1100 nm in Table 2, thus providing sufficient specificity for the range. This was previously stated in the Final Office action of 7/28/2003. The bandwidth is disclosed as not exceeding 30-

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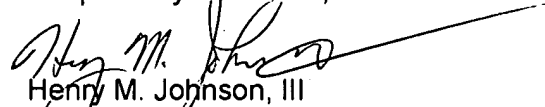
40 nm. Salansky et al is clearly capable of providing the cited wavelengths, in a divergent beam, at the fluences required, thus anticipating the claim elements. The reasoning behind selection of a specific wavelength is not relevant in an apparatus claim, however, the absorption (transmissivity) of various body fluids (water, hemoglobin, etc.) of electromagnetic energy are well known in the art and are a well known factor impacting the selection of treatment parameters (substantiated by: U.S. Patents – 5,066,291, 5,403,306, 5,868,731 & 6,162,213).

While the intended use is not a relevant factor in an apparatus claim, the applicant did selectively cite examples from Salansky et al. Salansky et al, in Table 2, cite treating herpes simplex and acne with wavelengths from 630 to 700 nm. The applicants indicate the peak transmission of water molecules as a key factor, yet the 630 nm as cited by Salansky et al has a higher transmission (according to applicant's graph) than either of the claimed wavelengths.

Regarding the secondary consideration of unexpected results, such results are restricted to specific examples. None of the claims cite an intended use, making any consideration moot.

For the above reasons, the rejections should be sustained.

Respectfully submitted,


Henry M. Johnson, III
Patent Examiner
Art Unit 3739

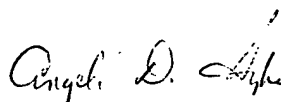
February 25, 2005

Conferees

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